



SIRIUS soft starter 200-480 V 18 A, 110-250 V AC Screw terminals without bypass, Analog output

product brand name	SIRIUS
manufacturer's article number	<ul style="list-style-type: none"> • of standard HMI module usable 3RW5980-0HS00 • of high feature HMI module usable 3RW5980-0HF00 • of communication module PROFINET standard usable 3RW5980-0CS00 • of communication module PROFIBUS usable 3RW5980-0CP00 • of communication module Modbus RTU usable 3RW5980-0CR00 • of circuit breaker usable at 400 V 3RV2032-4DA10: Type of coordination 1, Iq = 65 kA, CLASS 10 • of circuit breaker usable at 500 V 3RV2032-4DA10: Type of coordination 1, Iq = 15 kA, CLASS 10 • of circuit breaker usable at 400 V at inside-delta circuit 3RV2032-4EA10: Type of coordination 1, Iq = 65 kA, CLASS 10 • of circuit breaker usable at 500 V at inside-delta circuit 3RV2032-4EA10: Type of coordination 1, Iq = 15 kA, CLASS 10 • of the gG fuse usable up to 690 V 3NA3820-6: Type of coordination 1, Iq = 65 kA • of the gG fuse usable at inside-delta circuit up to 500 V 3NA3820-6: Type of coordination 1, Iq = 65 kA • of full range R fuse link for semiconductor protection usable up to 690 V 3NE1802-0: Type of coordination 2, Iq = 65 kA • of back-up R fuse link for semiconductor protection usable up to 690 V 3NE8020-1: Type of coordination 2, (soft starter in conjunction with the associated protective device circuit breaker/fuse), Iq = 65 kA
General technical data	
starting voltage [%]	30 ... 100 %
stopping voltage [%]	50 %; non-adjustable
start-up ramp time of soft starter	0 ... 20 s
ramp-down time of soft starter	0 ... 20 s
current limiting value [%] adjustable	130 ... 700 %
product component is supported	
• HMI-Standard	Yes
• HMI-High Feature	Yes
product feature integrated bypass contact system	No
number of controlled phases	3
buffering time in the event of power failure	
• for main current circuit	100 ms
• for control circuit	100 ms
insulation voltage rated value	480 V
degree of pollution	3, acc. to IEC 60947-4-2
impulse voltage rated value	6 V
blocking voltage of the thyristor maximum	1 400 V
service factor	1
surge voltage resistance rated value	6 kV
maximum permissible voltage for protective separation	
• between main and auxiliary circuit	480 V
shock resistance	15 g / 11 ms, from 12 g / 11 ms with potential contact lifting

vibration resistance	15 mm to 6 Hz; 2 g to 500 Hz
utilization category according to IEC 60947-4-2	AC-53b
reference code according to IEC 81346-2	Q
Substance Prohibitance (day/month/year)	05/18/2018
SVHC substance name	Lead CAS-No. 7439-92-1 Lead monoxide (lead oxide) CAS-No. 1317-36-8 2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol CAS-No. 79-94-7 2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one CAS-No. 71868-10-5 Melamine CAS-No. 108-78-1 6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol CAS-No. 119-47-1 Dibutylbis(pentane-2,4-dionato-O,O')tin CAS-No. 22673-19-4
Net Weight	5.2 kg
product function	
• ramp-up (soft starting)	Yes
• soft stopping	Yes
• Soft Torque	Yes
• adjustable current limitation	Yes
• intrinsic device protection	Yes
• motor overload protection	Yes
• inside-delta circuit	Yes
• auto-RESET	Yes
• manual RESET	Yes
• remote reset	Yes; By turning off the control supply voltage
• communication function	Yes
• operating measured value display	Yes; with optional HMI
• error logbook	Yes
• via software parameterizable	No
• via software configurable	No
• firmware update	Yes
• removable terminal for control circuit	Yes
• voltage ramp	Yes
• analog output	Yes; 4 ... 20 mA (default) / 0 ... 10 V (parameterizable with High Feature HMI)
Power Electronics	
operational current	
• at 40 °C rated value	18 A
• at 50 °C rated value	15.9 A
• at 60 °C rated value	13.8 A
operational current at inside-delta circuit	
• at 40 °C rated value	31.5 A
• at 50 °C rated value	28 A
• at 60 °C rated value	23.9 A
operating voltage	
• rated value	200 ... 480 V
• at inside-delta circuit rated value	200 ... 480 V
relative negative tolerance of the operating voltage	-15 %
relative positive tolerance of the operating voltage	10 %
relative negative tolerance of the operating voltage at inside-delta circuit	-15 %
relative positive tolerance of the operating voltage at inside-delta circuit	10 %
operating power for 3-phase motors	
• at 230 V at 40 °C rated value	4 W
• at 230 V at inside-delta circuit at 40 °C rated value	7.5 W
• at 400 V at 40 °C rated value	7.5 W
• at 400 V at inside-delta circuit at 40 °C rated value	15 W
Operating frequency 1 rated value	50 Hz
Operating frequency 2 rated value	60 Hz
relative negative tolerance of the operating frequency	-10 %
relative positive tolerance of the operating frequency	10 %
adjustable motor current	

<ul style="list-style-type: none"> • at rotary coding switch on switch position 1 	7.5 A
<ul style="list-style-type: none"> • at rotary coding switch on switch position 2 	8.2 A
<ul style="list-style-type: none"> • at rotary coding switch on switch position 3 	8.9 A
<ul style="list-style-type: none"> • at rotary coding switch on switch position 4 	9.6 A
<ul style="list-style-type: none"> • at rotary coding switch on switch position 5 	10.3 A
<ul style="list-style-type: none"> • at rotary coding switch on switch position 6 	11 A
<ul style="list-style-type: none"> • at rotary coding switch on switch position 7 	11.7 A
<ul style="list-style-type: none"> • at rotary coding switch on switch position 8 	12.4 A
<ul style="list-style-type: none"> • at rotary coding switch on switch position 9 	13.1 A
<ul style="list-style-type: none"> • at rotary coding switch on switch position 10 	13.8 A
<ul style="list-style-type: none"> • at rotary coding switch on switch position 11 	14.5 A
<ul style="list-style-type: none"> • at rotary coding switch on switch position 12 	15.2 A
<ul style="list-style-type: none"> • at rotary coding switch on switch position 13 	15.9 A
<ul style="list-style-type: none"> • at rotary coding switch on switch position 14 	16.6 A
<ul style="list-style-type: none"> • at rotary coding switch on switch position 15 	17.3 A
<ul style="list-style-type: none"> • at rotary coding switch on switch position 16 	18 A
<ul style="list-style-type: none"> • minimum 	7.5 A
adjustable motor current	
<ul style="list-style-type: none"> • for inside-delta circuit at rotary coding switch on switch position 1 	13 A
<ul style="list-style-type: none"> • for inside-delta circuit at rotary coding switch on switch position 2 	14.2 A
<ul style="list-style-type: none"> • for inside-delta circuit at rotary coding switch on switch position 3 	15.4 A
<ul style="list-style-type: none"> • for inside-delta circuit at rotary coding switch on switch position 4 	16.6 A
<ul style="list-style-type: none"> • for inside-delta circuit at rotary coding switch on switch position 5 	17.8 A
<ul style="list-style-type: none"> • for inside-delta circuit at rotary coding switch on switch position 6 	19.1 A
<ul style="list-style-type: none"> • for inside-delta circuit at rotary coding switch on switch position 7 	20.3 A
<ul style="list-style-type: none"> • for inside-delta circuit at rotary coding switch on switch position 8 	21.5 A
<ul style="list-style-type: none"> • for inside-delta circuit at rotary coding switch on switch position 9 	22.7 A
<ul style="list-style-type: none"> • for inside-delta circuit at rotary coding switch on switch position 10 	23.9 A
<ul style="list-style-type: none"> • for inside-delta circuit at rotary coding switch on switch position 11 	25.1 A
<ul style="list-style-type: none"> • for inside-delta circuit at rotary coding switch on switch position 12 	26.3 A
<ul style="list-style-type: none"> • for inside-delta circuit at rotary coding switch on switch position 13 	27.5 A
<ul style="list-style-type: none"> • for inside-delta circuit at rotary coding switch on switch position 14 	28.8 A
<ul style="list-style-type: none"> • for inside-delta circuit at rotary coding switch on switch position 15 	30 A
<ul style="list-style-type: none"> • for inside-delta circuit at rotary coding switch on switch position 16 	31.2 A
<ul style="list-style-type: none"> • at inside-delta circuit minimum 	13 A
minimum load [%]	15 %; Relative to smallest settable I _e
power loss [W] for rated value of the current at AC	
<ul style="list-style-type: none"> • at 40 °C after startup 	12 W
<ul style="list-style-type: none"> • at 50 °C after startup 	12 W
<ul style="list-style-type: none"> • at 60 °C after startup 	12 W
power loss [W] at AC at current limitation 350 %	
<ul style="list-style-type: none"> • at 40 °C during startup 	227 W
<ul style="list-style-type: none"> • at 50 °C during startup 	196 W
<ul style="list-style-type: none"> • at 60 °C during startup 	165 W
Control circuit/ Control	
type of voltage of the control supply voltage	AC
control supply voltage at AC	
<ul style="list-style-type: none"> • at 50 Hz 	110 ... 250 V

• at 60 Hz	110 ... 250 V
relative negative tolerance of the control supply voltage at AC at 50 Hz	-15 %
relative positive tolerance of the control supply voltage at AC at 50 Hz	10 %
relative negative tolerance of the control supply voltage at AC at 60 Hz	-15 %
relative positive tolerance of the control supply voltage at AC at 60 Hz	10 %
control supply voltage frequency	50 ... 60 Hz
relative negative tolerance of the control supply voltage frequency	-10 %
relative positive tolerance of the control supply voltage frequency	10 %
control supply current in standby mode rated value	30 mA
inrush current peak at application of control supply voltage maximum	12.2 A
duration of inrush current peak at application of control supply voltage	2.2 ms
design of the overvoltage protection	Varistor
design of short-circuit protection for control circuit	4 A gL/gG, 6 A quick; Fuse is not included in the scope of supply
Inputs/ Outputs	
number of digital inputs	1
number of digital outputs	3
• not parameterizable	2
digital output version	2 normally-open contacts (NO) / 1 changeover contact (CO)
number of analog outputs	1
switching capacity current of the relay outputs	
• at AC-15 at 250 V rated value	3 A
• at DC-13 at 24 V rated value	1 A
Installation/ mounting/ dimensions	
mounting position	+/- 10° rotation possible and can be tilted forward or backward on vertical mounting surface
fastening method	screw fixing
height	321 mm
width	185 mm
depth	203 mm
required spacing with side-by-side mounting	
• forwards	10 mm
• backwards	0 mm
• upwards	100 mm
• downwards	75 mm
• at the side	5 mm
weight without packaging	5.2 kg
Connections/ Terminals	
type of electrical connection	
• for main current circuit	box terminal
• for control circuit	screw-type terminals
width of connection bar maximum	25 mm
type of connectable conductor cross-sections for main contacts for box terminal	
• using the front clamping point solid	1x (2.5 ... 16 mm ²)
• using the front clamping point finely stranded with core end processing	1x (2.5 ... 50 mm ²)
• using the front clamping point stranded	1x (10 ... 70 mm ²)
• using the back clamping point solid	1x (2.5 ... 16 mm ²)
• using both clamping points solid	2x (2.5 ... 16 mm ²)
• using both clamping points finely stranded with core end processing	2x (2.5 ... 35 mm ²)
• using both clamping points stranded	2x (6 ... 16 mm ²), 2x (10 ... 50 mm ²)
• using the back clamping point finely stranded with core end processing	1x (2.5 ... 50 mm ²)
• using the back clamping point stranded	1x (10 ... 70 mm ²)

type of connectable conductor cross-sections	
<ul style="list-style-type: none"> • for control circuit solid 	1x (0.5 ... 4.0 mm ²), 2x (0.5 ... 2.5 mm ²)
<ul style="list-style-type: none"> • for control circuit finely stranded with core end processing 	1x (0.5 ... 2.5 mm ²), 2x (0.5 ... 1.5 mm ²)
wire length	
<ul style="list-style-type: none"> • between soft starter and motor maximum 	800 m
<ul style="list-style-type: none"> • at the digital inputs at AC maximum 	100 m
tightening torque	
<ul style="list-style-type: none"> • for main contacts with screw-type terminals 	4.5 ... 6 N·m
<ul style="list-style-type: none"> • for auxiliary and control contacts with screw-type terminals 	0.8 ... 1.2 N·m
tightening torque [lbf·in]	
<ul style="list-style-type: none"> • for main contacts with screw-type terminals 	40 ... 53 lbf·in
<ul style="list-style-type: none"> • for auxiliary and control contacts with screw-type terminals 	7 ... 10.3 lbf·in

Ambient conditions

installation altitude at height above sea level maximum	5 000 mm
ambient temperature	
<ul style="list-style-type: none"> • during operation 	-25 ... +60 °C; Please observe derating at temperatures of 40 °C or above
<ul style="list-style-type: none"> • during storage and transport 	-40 ... +80 °C
environmental category	
<ul style="list-style-type: none"> • during operation according to IEC 60721 	3K6 (no ice formation, only occasional condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6
<ul style="list-style-type: none"> • during storage according to IEC 60721 	1K6 (only occasional condensation), 1C2 (no salt mist), 1S2 (sand must not get inside the devices), 1M4
<ul style="list-style-type: none"> • during transport according to IEC 60721 	2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m)

Communication/ Protocol

communication module is supported	
<ul style="list-style-type: none"> • PROFINET standard 	Yes
<ul style="list-style-type: none"> • Modbus RTU 	Yes
<ul style="list-style-type: none"> • PROFIBUS 	Yes

Approvals Certificates

Environment	General Product Approval	EMV
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[Environmental Confirmations](#)



other

[Confirmation](#)

[Confirmation](#)



Further information

Information on the packaging

<https://support.industry.siemens.com/cs/ww/en/view/109813875>

Information for data generation and storage

<https://support.industry.siemens.com/cs/ww/en/view/109995012>

Information- and Downloadcenter (Catalogs, Brochures,...)

<https://www.siemens.com/ic10>

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mifb=3RW5114-1XC14>

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<https://support.industry.siemens.com/cs/ww/en/ps/3RW5114-1XC14>

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

https://www.automation.siemens.com/bilddb/cax_de.aspx?mifb=3RW5114-1XC14&lang=en

Cax online generator

<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mifb=3RW5114-1XC14>

Characteristic curves

[https://curves.simaris.siemens.com/curves/<mmp_prod_noCOMP="HAUPT"></mmp_prod_no>](https://curves.simaris.siemens.com/curves/<mmp_prod_noCOMP=)

Characteristic: Tripping characteristics, I_t, Let-through current

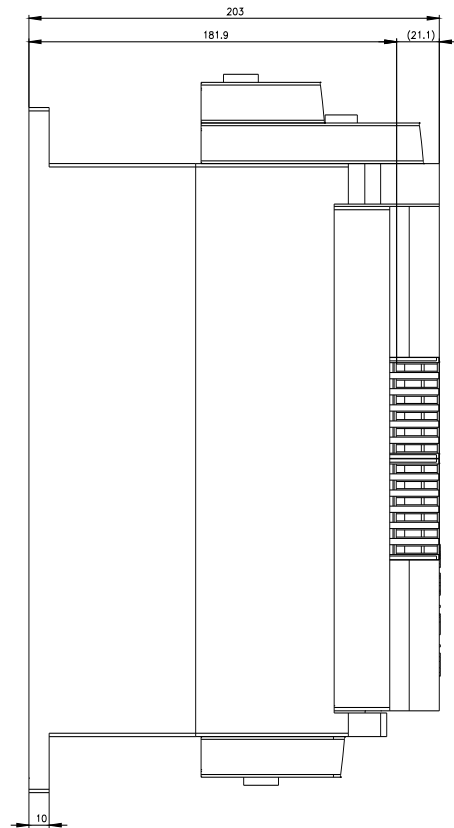
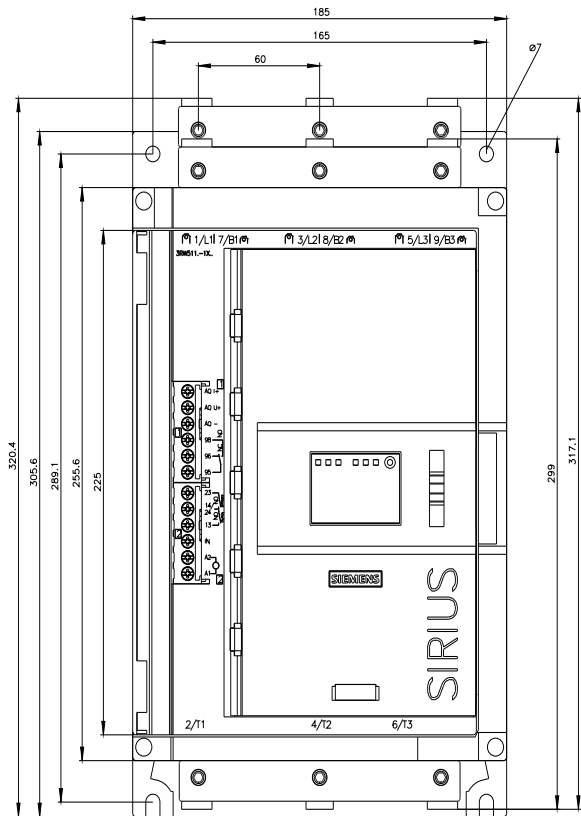
<https://support.industry.siemens.com/cs/ww/en/ps/3RW5114-1XC14/char>

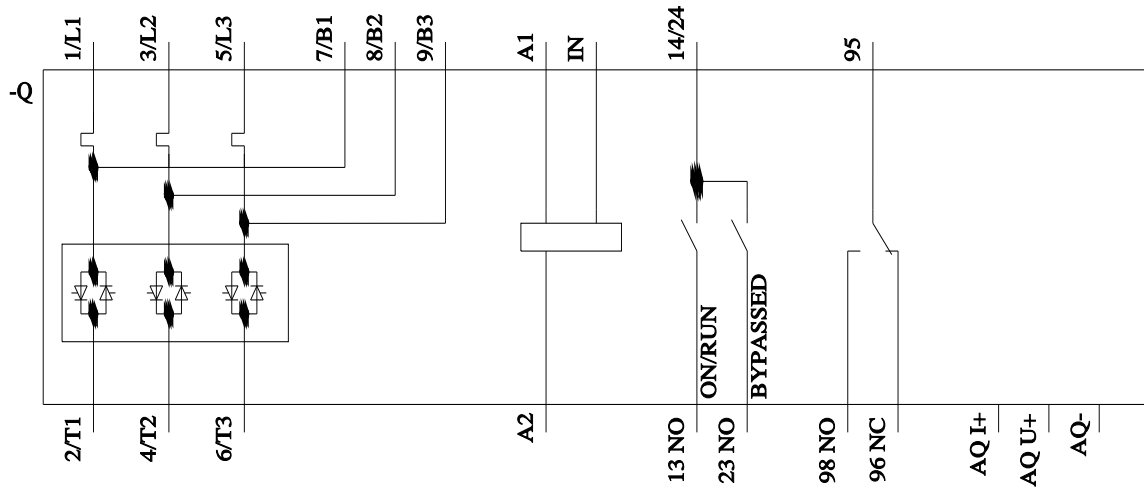
Characteristic: Installation altitude

https://www.automation.siemens.com/bilddb/index.aspx?gridview=view2&objkey=G_NSB0_XX_01704&showdetail=true&view=Search

Simulation Tool for Soft Starters (STS)

<https://support.industry.siemens.com/cs/ww/en/view/101494917>





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